## **Program**

### Friday, December 17

### **I1: Invited Technical Papers**

### Architectural Support for Internet Evolution and Innovation

Rudra Dutta (North Carolina State University, USA); Ilia Baldine (RENCI (Renaissance Computing Institute) & UNC Chapel Hill, USA); Anjing Wang (Ericsson, USA); Mohan Iyer (Oracle Corporation, USA); George N. Rouskas (North Carolina State University, USA) pp. 1-3

### Protection Costs of a Fully Connected IP Core Network Over a WDM Ring

Ćiril Rožić (University of Hawaii, USA); Galen Sasaki (University of Hawaii, USA) pp. 4-6

#### Silicon-based Devices for Computer Interconnects

Lech Wosinski (Royal Institute of Technology, Sweden); Zhechao Wang (Royal Institute of Technology, Sweden) pp. 7-9

### Green Lightpath Provisioning in Transparent WDM Networks: Pros and Cons

Pawel Wiatr (KTH Royal Institute of Technology, Sweden); Paolo Monti (The Royal Institute of Technology (KTH), Sweden); Lena Wosinska (Royal Institute of Technology KTH, Sweden)
pp. 10-12

### Saturday, December 18

### S1: High Speed Networks

### A Multi-Path Routing Scheme for GMPLS-Controlled WDM Networks

Rabindra Ghimire (University of Arkansas at Little Rock, USA); Seshadri Mohan (University of Arkansas at Little Rock, USA) pp. 13-15

### An Empirical Model of Power Consumption in the NetFPGA Gigabit Router

Arun Vishwanath (University of New South Wales, Australia); Zhi Zhao (university of New South Wales, Australia); Vijay Sivaraman (University of New South Wales, Australia); Craig L Russell (CSIRO, Australia) pp. 16-18

# A Heuristic for Combined Protection of IP Services and Wavelength Services in Optical WDM Networks

Chaitanya S. K. Vadrevu (University of California, Davis, USA); Massimo Tornatore (Politecnico di Milano & University of California, Davis, Italy); Chin Guok (Energy Sciences Network, USA); Inder Monga (Energy Sciences Network, USA) pp. 19-21

### Dynamic Circuits with Lightpath Switching over Wavelength Routed Networks

Neal Charbonneau (The MITRE Corporation, USA); Vinod M. Vokkarane (University of Massachusetts Dartmouth, USA) pp. 22-24

### Hybrid All-Optical Networks: Routing and Wavelength Assignment

Shivashis Saha (University of Nebraksa-Lincoln, USA); Chandra Nelapatla (University of Nebraska Lincoln, USA); Jitender Singh Deogun (University of Nebraska-Lincoln, USA) pp. 25-27

### Performance Analysis of Dynamic Bandwidth Allocation Algorithms for Long-Reach PONs

Neeharika Jana (Indian Institute of Technology Madras, India); Ganesh Chennimalai Sankaran (Indian Institute of Technology Madras & HCL Cisco Offshore Development Center, India); Krishna M. Sivalingam (Indian Institute of Technology Madras, India); Gerard P. Parr (University of Ulster, United Kingdom)

pp. 28-30

### **S2: Network Applications**

### New Link Addition Strategies for Multi-Gateway Small World Wireless Mesh Networks

Aditi Verma (University of Mumbai, India); Chetan Verma (UC San Diego, USA); Bheemarjuna Reddy Tamma (University of California, San Diego, USA); Manoj Bs (Indian Institute of Space Science and Technology & California Institute of Telecommunication and IT, India) pp. 31-33

### IdP proxy for combined authentication based on multiple IdPs

Tadashi Kaji (Hitachi, Ltd., Japan) pp. 34-36

### On Capturing Spatio-temporal Factors in Cognitive Network Channel Selection

Joshal A Daftari (University of California, San Diego, USA); Bheemarjuna Reddy Tamma (University of California, San Diego, USA); Manoj Bs (Indian Institute of Space Science and Technology & California Institute of Telecommunication and IT, India); Ramesh Rao (University of California at San Diego, USA)

pp. 37-39

### **Symbiotic Computing**

Akshay Singh (Yahoo! Software Development Center, India); Ravi Chandra (Yahoo! Software Development Center, India) pp. 40-42

### **S3: Core Networks**

### Evaluation of Post-Fault Restoration Strategies in Multi-Domain Networks

Feng Xu (University of New Mexico, USA); Tamal Dinesh Das (Indian Institute of Technology, Bombay, India); Min Peng (Wuhan University, P.R. China); Nasir Ghani (University of New Mexico, USA) pp. 43-45

### Mixed-Line-Rate (MLR) Optical Network Design with Wavebanding

Sifat Ferdousi (University of California, Davis, USA); Avishek Nag (University of California Davis, USA); Abu Ahmed S. Reaz (University of California, Davis, USA)
pp. 46-48

## Alternate Carrier Ethernet Technology - The Omnipresent Ethernet Demonstration

Ashok Verma (IIT Bombay, India); Saurabh Mehta (Indian Institute of Technology, Bombay, India); Ashwin A Gumaste (Indian Institute of Technology, Bombay, India)
pp. 49-51

### A Hybrid WDM/TDM PON Architecture Using Wavelength Selective Switches

Goutam Das (University of Ghent & IBBT, Belgium); Bart Lannoo (Ghent University - IBBT, Belgium); Didier Colle (IBBT - Ghent University, Belgium); Mario Pickavet (Ghent University, Belgium); Piet Demeester (Ghent University, Belgium) pp. 52-54

# Constructing Min-cost Single Failure Immune Recovery Trees: Computational Complexity and Approximation Algorithms

Xi Fang (Arizona State University, USA); Dejun Yang (Arizona State University, USA); Guoliang Xue (Arizona State University, USA); Krishnaiyan Thulasiraman (University of Oklahoma, USA) pp. 55-57

## Excess-Capacity-Aware, Shared-Path Protection with Backup Reprovisioning in Telecom Mesh Networks

Ferhat Dikbiyik (U. C. Davis, USA); Laxman Sahasrabuddhe (N/A, USA); Massimo Tornatore (Politecnico di Milano & University of California, Davis, Italy)

pp. 58-60

### **PS: Poster Session**

### Pre-computation Based Heuristic for Inter-Domain QoS Routing

Ahmed Frikha (INRIA/IRISA - University of Rennes 1, France); Samer Lahoud (IRISA, University of Rennes 1, France) pp. 61-63

### Cipher-Text Classification with Data Mining

Pejman Khadivi (Isfahan University of Technology, Iran); Marjan Momtazpour (Isfahan University of Technology, Iran) pp. 64-66

### Xpec: A Cross-Layer Spectrum Assignment in Cognitive Radio Networks

Berk Canberk (Istanbul Technical University, Turkey); Sema Oktug (Istanbul Technical University, Turkey)
pp. 67-69

# Particle Swarm Optimization for Optimal Allocation of Wavelength Converters in WDM Optical Networks

Kaushik Chakraborty (Jadavpur University, India); Aveek Chakrabarti (Jadavpur University, India); Aankan Mullick (Jadavpur University, India); Mrinal Kanti Naskar (Jadavpur University, India); Amitava Mukherjee (IBM India Pvt Ltd, Calcutta, India) pp. 70-72

# A Cost-efficient Algorithm for Finding Connected Dominating Sets in Static Wireless Ad Hoc Networks with Obstacles

Abhishek Raj (Tata Consultancy Services Limited, India); Debashis Saha (Indian Institute of Management (IIM)- Calcutta, India); Parthasarathi Dasgupta (Indian Institute of management Calcutta, India) pp. 73-75

### On the Data Services of Secondary User with Primary Exclusive Region

Sumit Kundu (N.I.T Durgapur, India); Sanjay Dhar Roy (National Institute of Technology Durgapur, India) pp. 76-78

## Multiple-Gateway Deployment for Wired/Wireless Converged Access Networks

Ming Xia (Ericsson Research US, USA) pp. 79-81

# Performance evaluation of TCP Reno and Vegas over different routing protocols for MANETs

Ibrahim Tabash (Aligarh Muslim University, India); Nesar Ahmad (A.M.U. Aligarh, India); Salim Beg (Aligarh Muslim University, India) pp. 82-84

# Fiber to the Antenna: A Step towards Multimode Radio Architectures for 4G Mobile Broadband Communications

Georgios Kardaras (Technical University of Denmark, Denmark); Jose Soler (Technical University of Denmark, Denmark); Lukasz Brewka (Technical University of Denmark, Denmark); Lars Dittmann (Technical University of Denmark, Denmark)

pp. 85-87

# Adaptive Distance Estimation and Localization in Wireless Networks with Triangle and Ptolemy Inequalities

Pejman Khadivi (Isfahan University of Technology, Iran) pp. 88-90

### Performance of Layered CDMA Wireless Sensor Networks with Space Diversity in Presence of Correlated Interferers

Uma Datta (Central Mechanical Engineering Research Institute, India); Pradyumna Kumar Sahu (Central Mechanical Engineering Research Institute, India); Sumit Kundu (N.I.T Durgapur, India) pp. 91-93

# Crosstalk-Aware Anycast Routing and Wavelength Assignment in Optical WDM Networks

Balagangadhar G Bathula (Columbia University, USA); Jeremy Plante (University of Massachusetts Dartmouth, USA); Vinod M. Vokkarane (University of Massachusetts Dartmouth, USA) pp. 94-96

# The Reliability of the Interconnection Networks Through Self Generating Disjoint Minimal Cut-Set Method

Pradyumna Tripathy (Silicon Institute of Technology, Bhubaneswar, India); Ranjan Dash (College of Engineering & Technology, Bhubaneswar, India); Chitta Tripathy (VSS University of Technology, Burla, India) pp. 97-99

# Adaptive MMSE-MRC Multiuser Detector with Mixed Phase Channel for DS-CDMA System

Mangala Ramrao Gajbhiye (National Institute of Technology, Rourkela, India); Jitendriya Satapathy (National Institute of Technology, Rourkela, India) pp. 100-102